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Committee on the Peaceful Uses of Outer Space
Scientific and Technical Subcommittee
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Draft report

Addendum

IV. Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment

1. In accordance with General Assembly resolution 68/75, the Subcommittee considered agenda item 7, "Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment".

2. The representatives of Brazil, Canada, China, Egypt, India, Indonesia, Iran (Islamic Republic of), Italy, Japan, Mexico, the Republic of Korea, the Russian Federation, the Syrian Arab Republic and the United States made statements under the agenda item. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

3. The Subcommittee heard the following scientific and technical presentations:

(a) "Belarusian space system for Earth remote sensing", by the representative of Belarus;

(b) "China high-resolution Earth observation system and its latest developments", by the representative of China;

(c) "Global Precipitation Measurement: an international mission for measuring global precipitation", by the representative of Japan;

(d) "General organization of remote sensing activities in Syria", by the representative of the Syrian Arab Republic;

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(e) "National Oceanic and Atmospheric Administration meteorological satellite update", by the representative of the United States;

(f) "The Israeli commercial remote sensing capabilities and their role in civil scenarios", by the representative of Israel.

4. In the course of the discussions, delegations reviewed national and cooperative programmes on remote sensing. Examples were given of national, bilateral, regional and international programmes to further socioeconomic and sustainable development, notably in the following areas: agriculture and fishery; monitoring climate change; disaster management; hydrology; managing ecosystems and natural resources; monitoring air and water quality; mapping biodiversity resources, coastal zones, watershed development and land use; ice-cover monitoring; oceanography; volcanology; rural development and urban planning; safety and public health; and food security and crop yield quantification.

5. The Subcommittee recognized that comprehensive, coordinated and sustained Earth observation systems were essential for the benefit of humankind and that significant efforts were being made to build the capacity of developing countries in using Earth observations to improve quality of life and advance their socioeconomic development.

6. The Subcommittee noted the increased availability of space-based data at little or no cost, including remote sensing data, made available from the China-Brazil Earth resources satellites, the SAC-C international mission, Landsat of the United States, the Greenhouse Gases Observing Satellite of Japan and OCEANSAT 2 of India.

7. The Subcommittee took note of the number of continued launches of Earth observation satellites and the innovative research conducted using such satellites, data from which could be used to develop advanced, global-integrated Earth-system models.

8. The Subcommittee noted that a growing number of developing countries had been actively developing and deploying their own remote sensing satellite systems and utilizing space-based data to advance socioeconomic development.

9. The Subcommittee recalled the important role played by organizations and initiatives such as APRSAF and Sentinel Asia and its Space Applications for the Environment initiative, the Group on Earth Observations (GEO) and the Committee on Earth Observation Satellites (CEOS) and its virtual constellations for the GEO initiative in promoting international and regional cooperation in the use of remote sensing technology, in particular for the benefit of developing countries.

10. The Subcommittee noted the progress made by GEO in the implementation of the Global Earth Observation System of Systems (GEOSS) and other initiatives, such as those on forest carbon tracking, climate and agriculture monitoring, development and integration of observation networks in cold regions and capacity-building efforts for the expansion of access to and use of Earth observation in developing countries. The Subcommittee also noted the 6th GEOSS Asia-Pacific Symposium held in Ahmedabad, India, in February 2013, and the GEO Plenary Meeting hosted by Switzerland in Geneva in January 2014.

11. The Subcommittee noted the successful conclusion of the 27th plenary meeting of CEOS, hosted by Canada in November 2013. The Subcommittee also noted that the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT) had taken up the chairmanship of CEOS for 2014 and would host its next plenary meeting in November 2014. The Subcommittee further noted that JAXA would take up the chairmanship of CEOS for 2015.

12. The view was expressed that all States should have equal access to remote sensing technology and the data produced by remote sensing technology, at reasonable cost.

XII. Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries, without prejudice to the role of the International Telecommunication Union

13. In accordance with General Assembly resolution 68/75, the Scientific and Technical Subcommittee considered agenda item 15, "Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries, without prejudice to the role of the International Telecommunication Union", as a single issue/item for discussion.

14. The representatives of Bolivia (Plurinational State of) and the Russian Federation and the representative of Chile, on behalf of the Group of Latin American and Caribbean States, made statements under agenda item 15. The observer for ITU also made a statement under the item. During the general exchange of views, statements relating to the item were made by representatives of member States.

15. The Subcommittee welcomed the information provided in the annual report for 2013 of the Radiocommunication Bureau of ITU on the use of the geostationary satellite orbit and other orbits (www.itu.int/ITU-R/space/snl/report/), as well as other documents referred to in conference room paper A/AC.105/C.1/2014/CRP.9. The Subcommittee invited ITU to continue to submit reports to it.

16. Some delegations expressed the view that the geostationary orbit was a limited natural resource that was at risk of becoming saturated, thereby threatening the sustainability of space activities in that environment; that its exploitation should be rationalized; and that it should be made available to all States, under equitable conditions, irrespective of their current technical capabilities, taking into particular account the needs of developing countries and the geographical position of certain countries. Those delegations were also of the view that it was important to use the geostationary orbit in compliance with international law, in accordance with the

decisions of ITU and within the legal framework established in the relevant United Nations treaties.

17. Some delegations expressed the view that the geostationary orbit provided unique potential for access to communications and information, in particular for assisting developing countries in implementing social programmes and educational projects and for providing medical assistance.

18. Some delegations expressed the view that this item should remain on the agenda of the Subcommittee and that its study could be carried out, as necessary, by working groups or intergovernmental panels in order to ensure the use of the geostationary orbit in accordance with international law.

19. The Subcommittee noted the experience of member States in their research of technical methods aimed at easing access for all States to the spectrum/orbital resources of the geostationatry orbit. In that regard, the Subcommittee noted the proposal to increase the maximum permissible levels of interference between fixed satellite services networks within non-planned bands in the orbit.

20. The Subcommittee congratulated the Plurinational State of Bolivia on the launch into geostationary orbit of its telecommunications satellite, Túpac Katari 1 (TKSat-1), which was carried out at the Xichang Satellite Launch Center, China, on 20 December 2013.

XIII. Draft provisional agenda for the fifty-second session of the Scientific and Technical Subcommittee

21. In accordance with General Assembly resolution 68/75, the Subcommittee considered agenda item 16, "Draft provisional agenda for the fifty-second session of the Scientific and Technical Subcommittee".

22. The Subcommittee noted that the Secretariat had scheduled the fifty-second session of the Subcommittee to be held from 2 to 13 February 2015.

23. The Subcommittee noted that, in accordance with General Assembly resolution 68/75, it would submit to the Committee its proposal on the draft provisional agenda for the fifty-second session of the Subcommittee and recommended that the following substantive items be included in the draft provisional agenda:

1. General exchange of views and introduction of reports submitted on national activities.
2. United Nations Programme on Space Applications.
3. Space technology for socioeconomic development in the context of the United Nations Conference on Sustainable Development and the post-2015 development agenda.
4. Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment.
5. Space debris.

6. Space-system-based disaster management support.

7. Recent developments in global navigation satellite systems.

8. Space weather.

9. Near-Earth objects.

10. Use of nuclear power sources in outer space.

(Work for 2015 as reflected in the extended multi-year workplan of the Working Group (see para. [...] and annex II, para. [...], to the present report of the Subcommittee))

11. Long-term sustainability of outer space activities.

(Extension of workplan to be considered by the Committee at its fifty-seventh session)

12. Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries, without prejudice to the role of the International Telecommunication Union.

(Single issue/item for discussion)

13. Draft provisional agenda for the fifty-third session of the Scientific and Technical Subcommittee, including identification of subjects to be dealt with as single issues/items for discussion or under multi-year workplans.

24. The Subcommittee agreed that the topic for the symposium to be organized in 2015 by the Committee on Space Research, in accordance with the agreement reached by the Subcommittee at its forty-fourth session, in 2007 (A/AC.105/890, annex I, para. 24), should be "Measuring the universe: looking back in time with modern astronomy".